CLAIMS

What is claimed is:

1. A reagent composition for preparing leukocytes for cytometric analysis, comprising:

a. a lipoprotein; and

b. an agent for lysing erythrocytes for permitting cytometric analysis of said leukocytes.

2. A reagent composition for preparing leukocytes for analysis by flow cytometry, comprising:

a. about 5 to about 100 mg/dl of lipoprotein cholesterol;

b. about 10 to about 300 mg mg/dl of saponin; and

c. about 1 to about 6 gm/dl of a preservative.

3. An aqueous reagent composition for preparing leukocytes for analysis by flow cytometry, comprising:

a. about 0.01 to about 5 parts by weight high density lipoprotein;

b. about 0.1 to about 2 parts by weight of saponin;

c. up to about 5 parts by weight of diazolidinyl urea; and

d. about 0.1 to about 2 parts by weight of a halide salt.

4. A method for preparing a blood sample for fluorescent analysis with a flow cytometer, comprising the steps of:

a. contacting at least one leukocyte in said blood sample with an aqueous reagent that includes:

i. a lipoprotein agent for resisting lysing of white blood cells; and

ii. an effective amount of an agent for lysing erythrocytes; and

iii. a physiologically compatible salt;

b. labeling said at least one leukocyte with a fluorescent label associated with a known antibody;

c. analyzing said at least one leukocyte with an analytical instrument.

5. A system for flow cytometry, comprising:

a. a flow cytometer instrument;

b. a reagent for preparing leukocytes for analysis by flow cytometry, said reagent including:

i. an effective amount of a lipoprotein; and

ii. an effective amount of a lytic agent.

6. The composition of claim 1 further comprising a preservative.

7. The composition of claim 1 wherein said preservative is a noncoagulative preservative.

8. The composition of claim 1 wherein said preservative is selected from the group consisting of diazolidinyl urea (DU), imidazolidinyl urea (IDU), an oxazolidine and mixtures thereof.

9. The composition of claim 1 further comprising an effective amount of a physiologically compatible salt.

10. The composition of claim 1 wherein said lipoprotein is a high density lipoprotein.

11. The composition of claim 1 wherein said agent for lysing is saponin.

12. The composition of claim 2 further comprising a salt solution.

13. The composition of claim 2 wherein said preservative is selected from the group consisting of diazolidinyl urea (DU), imidazolidinyl urea (IDU), an oxazolidine and mixtures thereof.

14. The composition of claim 13 wherein said preservative is diazolidinyl urea.

15. The composition of claim 2 wherein said salt solution includes sodium chloride.

16. The composition of claim 12 wherein said salt solution is aqueous.

17. The composition of claim 3, wherein said high density lipoprotein is present in an amount of about 0.1 to about 1 parts by weight.

18. The composition of claim 3, wherein said high density lipoprotein is present in an amount of about 0.2 to about 0.5 parts by weight.

19. The composition of claim 3, wherein said saponin is present in an amount of about 0.3 to about 1.5 parts by weight.

20. The composition of claim 3, wherein said saponin is present in an amount of about 0.5 to about 1 part by weight.

21. The composition of claim 3, wherein said diazolidinyl urea is present in an amount of about 0.5 to about 4 parts by weight.

22. The composition of claim 3, wherein said diazolidinyl urea is present in an amount of about 2 to about 3 parts by weight.

23. The composition of claim 3, wherein said halide salt is sodium chloride.

24. The composition of claim 23, wherein said sodium chloride is present in an amount of about 0.1 to about 2 parts by weight.

25. The composition of claim 23, wherein said sodium chloride is present in an amount of about 0.5 to about 1.5 parts by weight.

26. The method of claim 4 wherein said reagent further includes an effective amount of a preservative.

27. The method of claim 4 wherein said lipoprotein of said reagent is a high density lipoprotein.

28. The method of claim 4 wherein said labeling step (b) occurs prior to said contacting step (a).

29. The method of claim 4 wherein said labeling step (b) occurs after said contacting step (a).

30. The method of claim 4 wherein said contacting step (a) occurs at least 24 hours prior to said analyzing step (c).

31. The method of claim 4 wherein said contacting step (a) occurs at least 48 hours prior to said analyzing step (c).

32. The method of claim 4 wherein said contacting step (a) occurs at least two weeks prior to said analyzing step (c).

33. The method of claim 4 wherein said instrument is a flow cytometer.

34. The method of claim 4 wherein said instrument is a microscope.

35. The system of claim 5 further comprising a sample preparation instrument.

36. The system of claim 5 further comprising an antibody for binding with a surface antogen of at least one of said leukocytes.

37. The system of claim 36 further comprising a fluorochrome associated with said antibody.

38. The system of claim 36 wherein said antibody is a monoclonal antibody.